MOTOROLA *SOLUTIONS*

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Motorola Solutions Technical Notification (MTN)

TITLE: RAM Disk Full on VMS and vCenter.

TECHNOLOGY: ASTRO 25

SYMPTOMS:
UEM message concerning VMS or VCS with Severity set to "info": The ramdisk "tmp" is full. As a result, the file <file_name> could not be written.

Additional symptoms:
1. Unable to login to ESXi via web interface
2. hanging VMs and/or extremely slow performance,
3. syslog memory exhaustion errors:
   ```
   2019-11-05T09:05:05Z Unknown: out of memory [3261439]
   ```

MODELS / SYSTEM RELEASES / KITS / DATECODES AFFECTED:
System Release: ASTRO 25 A7.18 A2019.2

SEVERITY RECOMMENDATION:
Medium / Operational - Schedule to implement

ROOT CAUSE / DEFINITIVE TEST:
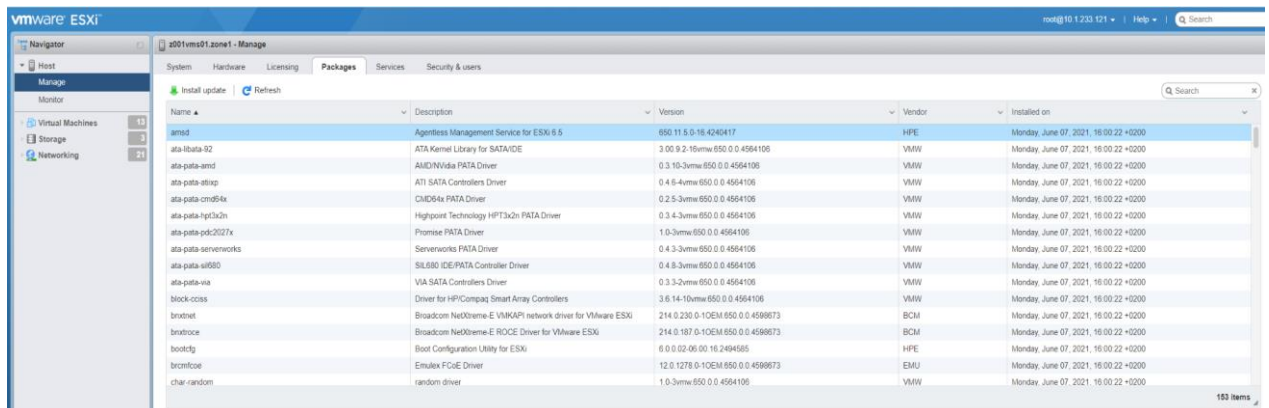Issue in HP-AMS service running on ESXi 6.0/6.5 VMS which causes /tmp to become full.

DEFINITIVE TEST

1	Try to login to the VMS with the Web User Interface.	
	IF	The Web User Interface is blocked by this issue and login is not possible.
	THEN	Go to step 6.
	Otherwise	Go to the next step.

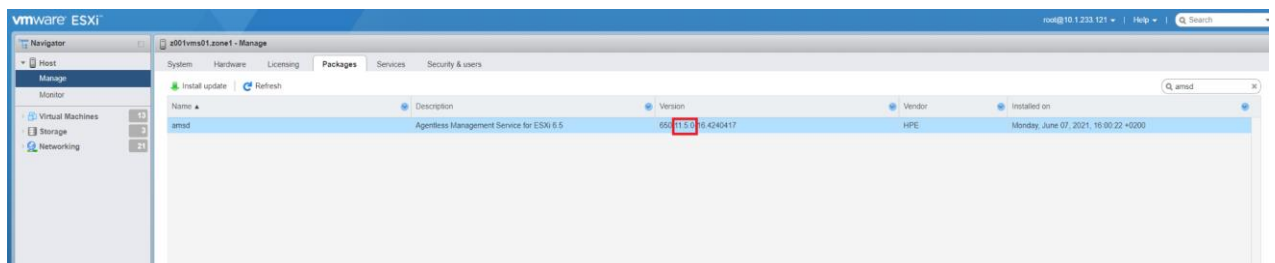| 2	Try to login to the VMS with the Web User Interface if it is not blocked by this issue.
	Log on to the VMware ESXi Embedded Host Client by performing the following actions:
	a) Launch the web browser.
	b) In the address bar, enter the IP address of the VMS host.
	c) If a certificate warning appears, continue to the page.
	d) The form of the warning and steps to ignore it depend on the web browser.
	e) In the User name field, enter: root
	f) In the Password field, enter the password.
	g) Click Log in.
	Result: The ESXi Embedded Host Client main page appears
3	In the Navigation pane click Manage then select Packages.
	Example:
	Result: All installed packages are displayed.
4	Type name amsd in the search box.
	Result: The amsd package is selected.

5	Check the version number of the **amsd** package, which has been marked with a red square in the figure above.	
	IF	If version is equal 11.4.0
	THEN	Your system is affected with this issue. Execute **RESOLUTIONS AND REPAIR PROCEDURES.**
	Otherwise	Your system is NOT affected with this issue. Logout from Web UI. MTN procedure is completed.
6	If the Web User Interface is blocked by this issue then follow the procedure. Establish the ssh connection to ESXi management interface IP address by using a **PuTTY** terminal emulator software. Log on as the `root user`. Result: A command prompt is displayed on PuTTY terminal emulator window.	
7	In the prompt, execute the following commands: `esxcli software vib list	grep ams`  example output:  `amsd 650.`**`11.4.0`**`-18.4240417 HPE PartnerSupported 2019-10-17` Result: The Version of amsd package is displayed.	
8	Check the version number of the amsd package, which has been marked with underline in the step above.	
	IF	If version is equal 11.4.0
	THEN	Your system is affected with this issue. Execute **RESOLUTIONS AND REPAIR PROCEDURES.**
	Otherwise	Your system is NOT affected with this issue. Go to the next step.
9	In PuTTY terminal window, enter the following command: `exit` Result: Secure remote terminal session is terminated and PuTTY terminal window is closed. MTN procedure is completed.	

WORKAROUNDS AND CORRECTIVE ACTIONS:

1	Establish the ssh connection to ESXi management interface IP address by using a PuTTY terminal emulator software. Log on as the `root user`. Result: A command prompt is displayed on PuTTY terminal emulator window.

2	In the prompt, execute the following commands one by one:
	rm /tmp/ams-bbUsg.txt
	vdf -h | grep -e "Ramdisk\\\|tmp"
	example output:
	Ramdisk Size Used Available Use% Mounted on tmp 256M 128M 128M 50% -
	Result: The output of the last command must indicate the /tmp use is lower than 100 %

RESOLUTIONS AND REPAIR PROCEDURES:

1	On NM Client, insert the corresponding "VMware Driver Media for ESXi 6.5 20200331-01" disc into the DVD-ROM drive.
	Result: The media is inserted and available to use (further on in this document, drive letter of DVD-ROM drive is referred as `<drive>`, which is defined as a character from a to z and colon).
2	From the Windows Start menu, enter Command Prompt in the search box to bring up the Command Prompt option, then right-click Command Prompt and select Run as administrator.
	Result: The Administrator Command Prompt window appears.
3	In Command Prompt window, enter the following command to copy driver package to an ESXi host:
	pscp `<drive>`\esxi6.5uX-mgmt-bundle-3.4.5-8.zip root@`<esxi-host-ip-address>`:/tmp
	where `<esxi-host-ip-address>` is an ip address of ESXi management network interface.
	If You are prompted to store or update key in cache (y/n), enter y to continue, and enter the password for
	root account.
	Result: The pscp command has copied the zip file to ESXi host.
4	In Command Prompt window, enter the following command to open remote terminal session to an
	ESXi host: putty root@`<esxi-host-ip-address>`
	where `<esxi-host-ip-address>` is an ip address of ESXi management network interface.
	Result: PuTTY terminal window appears, prompting to enter a password
5	Enter the password for the root account.
	Result: Remote secure terminal session is established, and command prompt appears.

6	In the prompt, execute the following commands one by one:
| | ```
rm /tmp/ams-bbUsg.txt
vdf -h | grep -e "Ramdisk\|tmp"
``` |
| | example output: |
| | ```
Ramdisk Size Used Available Use% Mounted on
tmp 256M 128M 128M 50% -
``` |
	Result: The output of the last command must indicate the /tmp use is lower than 100 %
7	In PuTTY terminal window, enter the following command:
	`esxcli software vib install --dry-run -d /tmp/esxi6.5uX-mgmt-bundle-3.4.5-8.zip`
	Verify that there are no error messages in the output of this command.
	Result: This command prints only information (without real execution) about predicted results of execution of this command.
8	In PuTTY terminal window, enter the following command (the same as previous command but without --dry-run option):
	`esxcli software vib install -d /tmp/esxi6.5uX-mgmt-bundle-3.4.5-8.zip`
	It can take up to 2 minutes for the command to complete. As a result the command prints:
	Installation Result
| | ```
Message: The update completed successfully, but the system needs to be rebooted for the
changes to be effective.  Reboot Required: true
``` |
	Expected message is the following: The update completed successfully, but the system needs to be rebooted for the changes to be effective.
	Result: Software was installed successfully.
9	In PuTTY terminal window, enter the following command:
	`exit`
	Result: Secure remote terminal session is terminated and PuTTY terminal window is closed.
10	On NM Client, run VMware vSphere Web Client. (using Internet Explorer)
	· Log in to the ESXi host with root credentials. · Gracefully shutdown virtual machines (guests). · Reboot the ESXi host.
	Result: Repair procedure is completed.

Upgrade to the appropriate version as listed in the "PARTS REQUIRED (HARDWARE/SOFTWARE):" section below, based on the model.

To obtain software:
1) Initiate a software request case through Motorola Solution, Inc. System Support Center (SSC) at 1-800-221-7144 (1-302-444-9800)
2) Await confirmation email from Motorola Solutions Software Factory with instructions
3) Complete the Motorola Solutions Software Factory Software Order Form:
   a) Reference **MTN-0005B-20-NA** in the 'Reason for Software/Hardware Change' section of the software order form.
   b) List the part number (**KC #** as listed under "PARTS REQUIRED (HARDWARE/SOFTWARE)" below) in the 'Part # or Version #' section of the software order form.
4) Email completed Software Order Form to MSSF for processing

PARTS REQUIRED (HARDWARE/SOFTWARE):
KC877C0AH000190201 VMware Driver Media for ESXi 6.5 20200331-01

ADDITIONAL INFORMATION:
N/A

REFERENCE THE FOLLOWING DOCUMENTS/PROCESSES FOR INSTALLATION PROCEDURES:
N/A

WHEN TO APPLY RESOLUTION:
After failure _X_
During maintenance _X_

LABOR ALLOWANCE:
This is an informational bulletin. No labor warranty is implied, intended or authorized for U.S. Domestic Partners/Customers. Other regions should follow their own standard procedures.

For assistance with this bulletin please contact your MSI Technical support center
https://www.motorolasolutions.com/en_us/support.html

MOTOROLA SOLUTIONS

Software Order Form

Motorola Solutions Software Factory   Phone Number: (800) 221-7144

SECTION 1: General Information

NOTE: PRICE QUOTES GIVEN BY UOST ARE VALID FOR ONLY 90 DAYS

Date _____   Case Number _____

System ID _____   Site ID _____

System Name _____   Site Name _____

Customer Name _____

Form Completed by _____   Field Contact _____

Organization _____   Organization _____

Phone Number _____   Phone Number _____

Pager Number _____   Pager Number _____

Fax Number _____   Fax Number _____

SECTION 2: Order Information

Product Type: _____   Serial Number _____

Reason for Software / Hardware Change: _____
Downgrade? If so, list current and target releases.   _____

Software / Hardware Description: _____

Part # or Version # _____   Quantity _____

Date Required _____

SECTION 3: Shipping / Billing Information

Ship To: _____

Bill To: _____

_____

_____

_____

Email: _____

_____

Attn: _____

Attn: _____

Phone: _____

Phone: _____

Customer Billing

Internal Billing

P.O. #: _____

PROJECT #: _____

CUST #: _____

FSB #: _____

TAG #: _____

DEPT #: _____

APC #: _____

MOTOROLA *SOLUTIONS*

Software Order Form

Motorola Solutions Software Factory   Phone Number: (800) 221-7144

° This form has been sent to you because you have requested an order from
   the *Motorola Solutions Software Factory* Team.

° Please fill out the order form and email back to the *Motorola Solutions Software Factory*
   Team

° If desired, please provide your email address on the order form
   and we will provide a tracking number when your order ships for your convenience.

° Orders will normally be processed in 3-5 business days once all information has been
   received.

° If additional space is required for software information, please use the optional addendum on
   page 3 below in addition to the original order form. This form is for use with large orders with
   multiple part numbers.

NOTE:

1) If this is SSA CUSTOMER please order via Motorola factory order.
2) Limited Liability is Implied to the maximum of order amount.
3) Price quotes provided by SCHSWF are valid for 90 days

Thank you and have a good day!

Supplemental Order Information Addendum

(Optional)

Software Description _____

Part# or Version # _____

Quantity: _____

Software Description _____

Part# or Version # _____

Quantity: _____

Software Description _____

Part# or Version # _____

Quantity: _____

Software Description _____

Part# or Version # _____

Quantity: _____

Software Description _____

Part# or Version # _____

Quantity: _____